REMARKS

This *Amendment* is in response to the *Office Action* of November 15, 2006. In the outstanding *Office Action* the restriction of Group II in the prior *Office Action* was withdrawn and therefore Claims 1-48 and 123-150 were considered to be the elected claims. Claims 49-89 and 90-122 were withdrawn from further consideration by the Examiner.

The disclosure was objected to because in the specification "Lindsey" should be changed to ---Lindsay--. The drawings were objected to because applicants have submitted photocopies/copies of SEM photographs which were not very legible. Corrected drawing sheets were required in reply to the *Office Action* to avoid abandonment of the Application.

Claims 1-28 and 123-150 were provisionally rejected on the ground of non-statutory obvious-type double patenting as being unpatentable over claims 22-33 of co-pending application serial No. 11/104,014. Moreover, claims 29-89 were also rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-90 of co-pending application No. 11/108,375 and over claims 1-78 of co-pending application No. 11/108,475.

Claims 1-48, 123-131 and 143-150 were rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over *Klowak*, U.S. Patent No. 4,849,054 or *Grinnell et al.*, U.S. Patent No. 5,314,584. Further, claims 132-142 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Klowak* or *Grinnell et al.* noted above.

As amended, and in view of the enclosed *Declaration of Steven L. Edwards Under 37 CFR 1.132* this application is believed in condition for allowance. The specification has been amended to correct typographical errors and update the status as to co-pending applications. Moreover, undersigned counsel has had the original file examined by an assistant who reported that the original documents are in good order, and do not resemble the scanned copies available on the Patent Office PAIR website. Submitted under separate cover are replacement sheets on non-glossy paper, which will (hopefully) scan better. If further action is required, it will be resolved in due course. The problem appears to reside in the scanning equipment and/or scanning technique applied.

Turning to the obviousness-type double patenting rejections, it is noted that this application i.e., United States Serial No. 10/679,862 is by far the earliest filed case involved in the double patenting rejections. No Official Action has been taken on the cases cited in the obviousness-type double patenting rejections. It is accordingly requested that the double patenting rejections be held in abeyance as suggested in MPEP §804(I). The other co-pending applications cited by the Examiner have not yet been examined and it is thus highly likely that the double patenting rejection should ultimately be withdrawn in accordance with MPEP §804(I).

Applicant has added new claims as follows:

New Claim 151 is a combination of original Claims 1, 6 and 25 including recitation to the effect that the absorbent sheet has a CD stretch of from about 5 to 20 % and an absorbency of at least about 5 g/g. New claims 152 and 153 correspond to original Claims 7 and 8, yet depend from new Claim 151. New Claims 154-156 correspond to original Claims 26, 27, and 28 but depend from new Claim 151. Also added was new independent Claim 157 which is a combination of original Claim 1, original Claim 6 and incorporates the limitation from original Claim 25 that the absorbent sheet has an absorbency of at least 5 g/g as well as the recitation of original Claim 13 that the absorbent sheet has an MD/CD tensile ratio of less than about 1.1. New Claim 158 corresponds to original Claim 14, yet depends from new Claim 157. New Claim 159 corresponds to original Claim 15, yet depends from new Claim 157, while new Claim 160 corresponds to original Claim 8, yet depends from new Claim 157. New Claim 161 is based on Claim 1 and recites the 100 feet per minute velocity delta value found in the application as filed, p. 22, line 21. New Claims 162-165 likewise recite velocity deltas found on page 21 of the specification, lines 18+. No new matter has been added.

Turning to the rejections made on art, and notably *Klowak* '054 and *Grinnell et al.* '584, it is noted that neither of these references suggest an absorbent sheet of variable basis weight as is claimed in Claim 1. It is further noted that neither reference discloses an absorbent sheet fabric creped under pressure in a fabric creping nip as is claimed, for example, in Claim 25, wherein the web has an absorbency of at least 5 g/g. It is still further noted that neither reference, either alone or in combination, discloses an absorbent sheet which has been compactively dewatered, fabric creped from a surface moving at a velocity of at least about 1000 fpm, rearranged on a creping fabric and dried, wherein the web has an absorbency of at least about 5 g/g, and a CD stretch of at least about 4%. Likewise, the new claims calling for velocity deltas in the creping nip of 100 feet per minute and more are not believed even remotely suggested in the art.

Regarding the anticipation rejections in the office action, it is thus clear that the "all elements rule" is not met by either reference as is required for a novelty rejection. *See In re Robertson*, 49 USPQ2d 1949,1950 (CAFC 1999): "Anticipation .... requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).". *Klowak* '054 teaches to use a non-compressive creping nip, does not teach variable local basis weight, nor does the reference specify a velocity delta. *Grinnell et al.* '584 does not even teach absorbent sheet, a feature in all of the claims. Moreover, the '584 patent does not suggest the tissue and towel properties claimed in this application.

The references likewise do not support obviousness rejections, especially in view of the enclosed *Declaration*, because post-formation web rearrangement as is claimed is not taught. See paragraph 3 of the enclosed *Declaration of Steven L. Edwards under 37 CFR § 1.132*:

> 3. The '862 Invention is generally directed to a wet-press process for making absorbent sheet including compactively dewatering, that is, wet-pressing a nascent web and subsequently belt or fabric-creping a wet web from a transfer surface such that the wet web is ***re-distributed*** on the creping belt, for example, into interconnected high local basis weight regions and low local basis weight regions........

It was noted in *In re Thrift*, 63 USPQ2d 2002, 2006 (CAFC) 2002, *prima facie* obviousness is established upon objective teachings in the prior art or when knowledge generally available, leads to the claimed invention:

> A. Prima Facie Case of Obviousness and Claim 1
> To establish a prima facie case of obviousness, the Board must, inter alia, show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to

> combine the relevant teachings of the references." In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598(Fed. Cir. 1988). "The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved." Kotzab, 217 F.3d at 1370, 55 USPQ2d at 1317.

and that such teachings or knowledge must be applied with respect to **each** element of **each** claim. In stating that such a showing had not been made, the CAFC held:

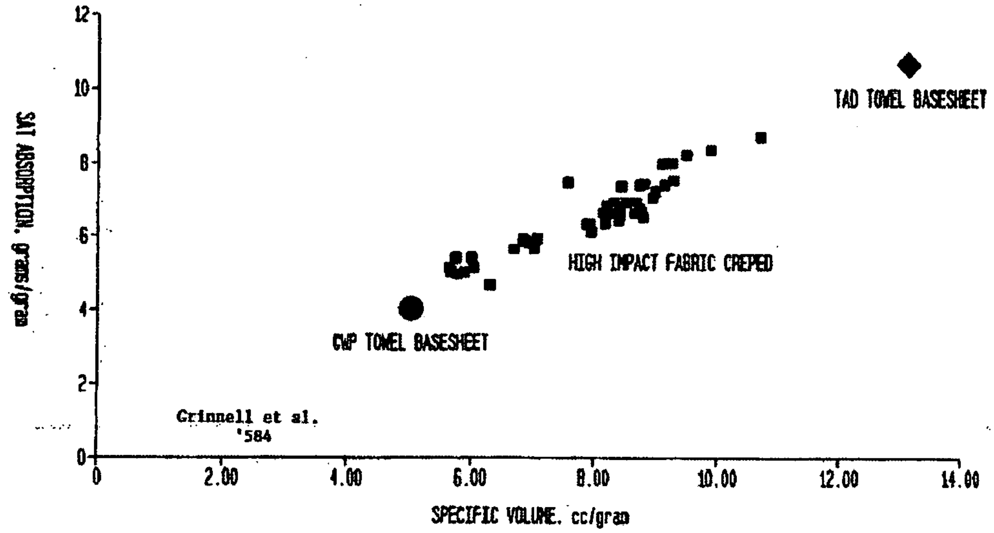
> ...[T]hat the Board's ground of rejection is simply inadequate on its face. The Board sustained the examiner's very general and broad conclusion of obviousness based on his finding that "[t]he use of grammar is old and well known in the art of speech recognition as a means of optimization which is highly desirable."Aug. 7, 1996 Office Action at 5; accord Decision on Request for Rehearing at 6. Although this statement is likely true, it fails to address the grammar-creation capability limitations of claim 11. While the examiner's statement generally addresses the use of grammar, it does not discuss the unique limitations of extracting, modifying, or processing the grammar to interact with hypermedia sources. **The Board's decision is not supported by substantial evidence because the cited references do not support each limitation of claim 11.** See In re Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1443(Fed. Cir. 1991).

In re Thrift, at 2008. *Note also*, *Eli Lilly* v. *Zenith Goldline et al.*, Docket 05-1396 (CAFC December 26, 2006) where the Court reaffirmed the need for a prior art teaching of all claim elements to justify a conclusion of obviousness. With respect to the Present Invention, the *Klowak* '054 and *Grinnell et al.* '584 references do not even remotely suggest the various methods claimed of re-distributing a fibrous web on a creping fabric or belt for the manufacture of absorbent sheet.

In the enclosed *Declaration*, paragraph 4, Dr. Edwards notes that the text and **Figures** of the *Klowak* '054 patent are consistent with conventional crepe bar and embossed geometry of webs which do not have a local variation in basis weight. Moreover, it is further noted in the *Declaration* (and apparent from the text of the patent) that the *Klowak* '054 patent contemplates a non-compressive creping nip. It is still further noted that *Klowak* '054 describes absorbent sheet with relatively low CD stretch values of less than 4% and mostly less than 3%. The court in *In re Geisler* 43 USPQ2d 1362, 1365 (CAFC 1997) stated that even a *prima facie* case of obviousness is rebutted if it is shown that the art teaches away in any material respect; further noting in *Geisler* that the existence of unexpected properties in the range claimed rebut a *prima facie* case. *Geisler* at 43 USPQ2d 1365. *Klowak* '054 teaches away from the Present Invention because it directs to use a non-compressive creping transfer and completely fails to suggest the unexpected and surprising results observed with the Present Invention.

Regarding the '584 *Grinnell et al.* patent it is noted by Dr. Edwards (paragraphs 8,9) that the sheets described therein have a specific basis weight of greater than 4 pounds/mil/-3000 sq. ft ream which corresponds to a specific volume of less than about 4 g/cc. To one of skill in the art, this suggests that the book cover contemplated by *Grinnell et al.* are not absorbent sheets, but in fact have absorbency less than about 2 g/g. Thus, it is believed that neither *Grinnell et al.*, nor *Klowak*, nor the references in combination are a sufficient basis, *prima facie,* to establish obviousness in view of the enclosed *Declaration* as to interpretation of those references. *Note* **Figure 24** of the application as filed and the relative position of the *Grinnell et al.* sheet:

FIG. 24



Furthermore, the *Grinnell et al.* '584 patent is non-analogous art because it relates to paperboard, not absorbent sheet. *See* paragraphs 7, 8 and 10-21 of the enclosed *Declaration.*

Note particularly paragraphs 8 and 10:

> 8. United States Patent No. 5,314,584 to *Grinnell et al.*, relates to paper cover stock material with a textured surface pattern suitable for book covers or wallpaper. This patent does not describe material suitable for absorbent sheet as is claimed, for example, in Claims 25 and 29 of the '862 application which specifically recite an absorbency of at least 5 g/g. *Grinnell et al.* '584 teaches a sheet with an apparent density (sic) of greater than 4 lbs per 3000 ft^2 ream per mil of caliper (see Claim 1 of the '584 patent) or, in other units, a specific volume of less than about 4 cc/g. Furthermore, I do not believe the *Grinnell et al.* '584 reference relates to absorbent sheet at all as that terminology is used in the paper industry. Rather, one of skill in the art would consider *Grinnell et al.* '584 as relating to "flat" paper. In this regard, I am attaching as Exhibit 2 copies of pages 2, 3 and 179 of The Dictionary of Paper, American Paper Institute (1980) which describes absorbent papers as follows:
>
> > **Absorbent Papers.** Soft, loosely felted papers that readily absorb water solutions or liquid chemicals. They are not sized with water-repellent agents, but may be treated with materials that enhance their wet strength. They include blotting, filter, matrix, and toweling papers, and base papers for the manufacture of vegetable parchment, artificial leather, vulcanized fiber, and many other processed papers.
>
> while "flat" papers are described as follows:
>
> > **Flat Paper.** Paper which comes from the mill in flat sheets, without fold or crease. The term is applied especially to writing papers in packages of flat sheets of standard sizes and finishes.
>
> So called "flat" papers include paperboard used as cover stock, linerboard for corrugated products as well as packaging papers. Flat papers are formed differently from absorbent sheet. They are not very absorbent and not useable in tissue and towel products, for example and are often sized in a size press as described in the *Grinnell et al.* '584 patent. Sometimes "flat" paper is simply referred to as "paper", while absorbent papers are referred to as "tissue", "towel" or with like terminology to distinguish it from flat paper. One of skill in the art would not consider the products or manufacture thereof similar or interchangeable, as is further discussed herein.
>
> 10. One of skill in the art would recognize the '584 patent as relating to paperboard, a flat paper which has entirely different properties than absorbent cellulosic sheet. Before discussing *Grinnell et al.* further, it might be useful to present more general information here before specifically discussing the board

properties disclosed in the ′584 patent. Consider the following definitions available from the American Forest and Paper Association:

> **Paperboard:** One of the two subdivisions of paper. The distinction is not great, but paperboard is heavier in basis weight, thicker, and more rigid than paper. All sheets 12 points (0.012 inch) or more in thickness are classified as paperboard. There are exceptions. For example, blotting papers, felts, and drawing paper in excess of 12 points are classified as paper, while corrugating medium, chipboard, and linerboard less than 12 points are classified as paperboard.

The same set of definitions describes tissue (absorbent sheet) quite differently:

> **Tissue:** A general term indicating a class of papers which are characteristically gauzy in texture and, in some cases, fairly transparent. They may be glazed, unglazed, or creped, and are used for a variety of purposes. Examples of different types of tissue papers include sanitary grades such as toilet, facial, napkin, towels, wipes, and special sanitary papers. Desirable characteristics in these types of tissue papers are softness, strength, and freedom from lint. Other examples of tissue papers are decorative and laminated tissue papers and crepe papers, often used in gift wrapping and to decorate. Desirable characteristics here are appearance, strength, and durability. Tissue papers are divided into three major categories: At-Home (or Consumer), Away-from-Home (or Commercial & Industrial), and Specialty.

Paperboard is made differently than tissue and towel. *See* paragraph 11 of the *Declaration:*

> 11. Further distinctions between absorbent sheet and paperboard and the like are appreciated from Britt, K.W. ed., Handbook of Pulp and Paper Technology, Ch. 6, Exhibit 1, to this *Declaration.* It is noted in the Handbook that products such as paperboard, liner, wrapping material and the like which are much denser than tissue and towel and are formed differently from absorbent sheet preferably using different equipment. The differences between the products is largely due to furnish selection and formation of the web, which I think further demonstrates the unexpected nature of the ′862 Invention. Consider:
>
> Page 401, Col. 1, third full paragraph:
>
>> Due to the wide variation in paper properties (tissue, greaseproof, boards, etc.), basis weights (3 to 3000 lb), and speeds (10 to 5000 fpm) used in the industry, the demands on the forming section varies greatly. This has resulted in the development of a number of different types of forming methods, each with its preferred application.

First full paragraph, Col. 2, p. 403:

> The time needed to form a sheet increases at least with the square of the basis weight and is proportional to the drainage constant of the pulp. (Figs. 3 and 4.) The drainage constant can increase more than a thousand times, due to beating of the pulp and increases also with retention of fine material. This together with the very large variation in basis weights being produced illustrates why some products such as tissue can be made at very high speeds (5000 fpm), despite a very short forming length, while products like building board are made at speeds of 30 fpm. The large variation in drainage times needed has produced different types of drainage processes for different products......

Note that heavy grades of paper are compacted when formed; *see* the Handbook at p. 412, 4th full paragraph of the second column:

> Some heavy grades of paper and pulp that are difficult to drain need a high vacuum over a substantial length to accomplish the compaction and suction of air through the sheet. To accomplish this with ordinary suction boxes creates too much friction, thus forcing the development of rotary suction boxes and rotabelts....

Contrast the foregoing with the first full paragraph to the 3rd full paragraph of p. 413. Col. 1 of the Handbook:

> On very light easy draining papers (like tissue) that are always run with pick-up arrangements, suction couches are not required. Here the couch is normally a grooved roll that makes it possible to perform the pick-up against the roll without crushing.

Page 415, first full paragraph, Col. 1:

> **Suction Breast Roll Formers** Very special forming devices have been developed for high-speed manufacture of lightweight sheets, especially tissue and toweling. The suction breast roll former shown in Fig. 20 page 418 is typical for such an arrangement. The former consists of an open grill roll normally with a two-compartment suction box provided either with a wire sleeve or a wire wrapping part of its periphery and a stationary lip extending from the headbox over the forming area that defines the forming zone. The forming length is very short which limits the usefulness of this former to lightweight sheets. The curvature of the upper lip must conform to the drainage curve of the sheet being formed, making the former most suitable as a single purpose machine. The high shear against the stationary top lip also limits the basis weights and the top speeds for which it can be used. It is today the dominant former for tissue papers and is used at speeds up to 4000 fpm. However, there are indications that a new approach is needed for speeds above 4000 fpm. Two recent developments in suction roll formers are those of Scott, described in *Paper Trade J.*, 152, No. 53. 22. (Dec. 30, 1958), and of

> Kimberly-Clark, *Paper Trade J.*, 163, No. 6, 40, (Feb. 10, 1969). The Scott forming section is shown in Fig. 15.....
>
> From the above, I believe it is clear that low weight, porous products have an fundamentally different structure than flat paper or paperboard. This difference can also be discerned from porosity measurements, discussed below.

Paperboard has entirely different properties than tissue and towel as noted in paragraph 17 of the *Declaration*:

> 17. The data of *Grinnell et al.* '584 in terms of specific basis weight, tensiles and porosity appears to correlate closely with the paperboard data appearing in United States Patent No. 6,846,529 to *Mohan et al.*, which is directed to paperboard for making paper cups and attached at Exhibit 3. It is seen in Table 2, Col. 10 of the '529 patent, that the paperboard of the *Moran et al.* '529 patent has specific basis weights in the 7-12 lbs/per mil per ream range only slightly higher than that of *Grinnell et al.* '584 (4-7 lbs/mil; *see* Col. 11, line 1 of *Grinnell et al.* '584). Basis weights in the *Moran et al.* '529 patent, Table 2, are 140-200 lbs/ream........
>
> In Table 2, last line, Col. 11, of *Moran et al.* '529, Gurley values of 8-26 seconds are given, again consistent with the data of *Grinnell et al.* '584 and an order of magnitude less porous than absorbent sheet......
> It is thus clear to me that *Grinnell et al.* '584 does not disclose, teach or suggest the highly porous, absorbent structures of the '862 Invention. Table 5 of *Grinnell et al.* '584 is somewhat abbreviated; however I think it is worthwhile to calculate a fabric crepe ratio and to compare the data with the '862 Invention even though this includes various assumptions.

Grinnell et al. '584 is clearly concerned with an entirely different endeavor than the manufacture of absorbent sheet and thus is not relevant for purposes of obviousness. *See Wang Laboratories Inc. v. Toshiba Corp.* 26 USPQ2d 1767, 1773:

> Analogous art is that which is relevant to a consideration of obviousness under section 103. See In re Sovish , 769 F.2d 738, 741, 226 USPQ 771, 773 (Fed. Cir. 1985). "Whether something legally within the prior art is 'analogous' is a fact question. . . ." Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1568 n.9, 1 USPQ2d 1593, 1597 n.9 (Fed. Cir.), cert. denied , 481 U.S. 1052 (1987). Two criteria are relevant in determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the art is not within the same field of endeavor, whether it is still reasonably pertinent to the particular problem to be solved. In re Clay , 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992) (citations omitted). The '392 patent is entitled

> "Memory Circuit for Programmable Machines"; it discloses a SIMM containing nine memory chips, eight for storing data and one for error detection, mounted in a single row. In the late 1970's, Allen-Bradley manufactured and sold the X9 SIMM for use in its 9-bit programmable controller. This product consisted of nine memory chips encapsulated in ceramic dual in-line packages (ceramic DIPs) mounted on an epoxy-glass printed circuit board substrate.
> ***The Allen-Bradley art is not in the same field of endeavor as the claimed subject matter merely because it relates to memories. It involves memory circuits in which modules of varying sizes may be added or replaced; in contrast, the subject patents teach compact modular memories.*** [Empasis Supplied]

Note in *Wang*, the Court rejected the notion that art was relevant merely because it related to memories as did the invention. Here, the fact *Grinnell et al.* '584 relates to paperboard manufacture, does not make it relevant to the manufacture of absorbent sheet as is claimed. One of skill in the art would not consider *Grinnell et al.* '584 relevant to absorbent sheet.

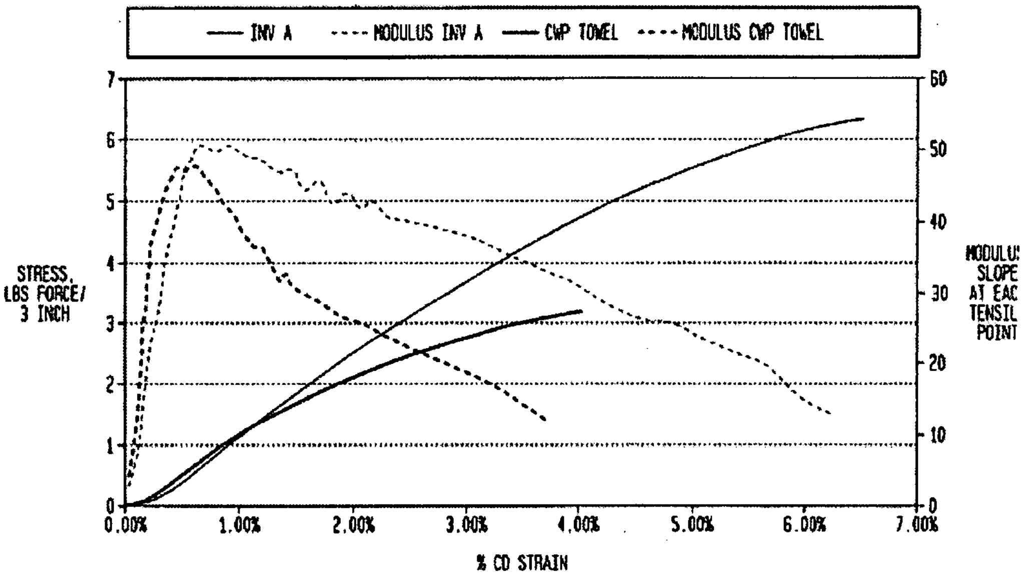
Moreover, the invention is particularly nonobvious because it is contrary to conventional wisdom in the art—that fiber location and orientation in a web is fixed during web-forming. Not so here. Returning to paragraph 3 of the enclosed *Declaration* it is seen that the art generally teaches away from the present invention:

> 3. The '862 Invention is generally directed to a wet-press process for making absorbent sheet including compactively dewatering, that is, wet-pressing a nascent web and subsequently belt or fabric-creping a wet web from a transfer surface such that the wet web is ***re-distributed*** on the creping belt, for example, into interconnected high local basis weight regions and low local basis weight regions. What is very unique about the '862 Invention is that fiber is re-distributed (after forming the web) on the fabric creping surface such that fiber changes its position and orientation in the web. This post-formation rearrangement or redistribution of the fiber in the web is very different from conventional practice in the papermaking industry. Consider, for example, the attached pages from the Handbook of Pulp and Paper Technology, Britt, K.W., 2nd ed. Ch. 6, pp. 401-418 (Exhibit 1); especially page 401, second full paragraph which states that web formation determines fiber position and direction:
>
> ***As the position and direction of the fibers in the sheet structure is almost entirely determined by the forming process***, it follows that many of the most important quality characteristics of the paper are established

> here. Properties mainly determined by the forming section are: formation, strength isotropy, fines distribution throughout the sheet, wire mark, and to a large extent, surface uniformity.
>
> Changes in the web structure after formation are conventionally avoided because such changes produce defects such as strength defects, surface defects "orange peel" and so forth. It is surprising that the fiber in an already formed web can be re-distributed to form absorbent sheet with desirable properties such as increased bulk, reduced, yet uniform tensiles, increased CD stretch and so forth as is seen in United States Patent Application Serial No. 10/679,862. I will comment on the invention in more detail below after commenting briefly on *Klowak '054* and in some detail as to *Grinnell et al.* '584 which relates to paperboard manufacture.

Accordingly, it is believed that the present invention is most clearly patentable without even looking to superior results. Even if there were, *prima facie,* an issue as to nonobviousness in this case, the surprising and unexpected superior results summarized in the enclosed *Declaration*, render the claimed subject matter most clearly patentable. Among the superior results are: 1) local basis weight variation imparted to the web ***after*** formation which provides for improved softness and absorbency; 2) elevated absorbency in bulk for a wet-press absorbent product; 3) reduced MD/CD tensile ratios making it possible to produce softer sheet or sheet with less fiber; and 4) increased CD stretch for a wet press product. Increased CD stretch for a wet press product is believed particularly significant since CD stretch of tissue and towel is very important to perceived toughness of an absorbent product since it is a measure of elongation of rupture of the product in the cross machine directions where stretch is typically lowest for CWP and other creped products. CD stretch values of from about 5-10 % are particularly unexpected since such CD stretch values are conventionally seen only in through-dried absorbent sheet. *See* enclosed *Declaration of Steven L. Edwards*, paragraph 27, and *note* **Figure 42** of the application as filed:

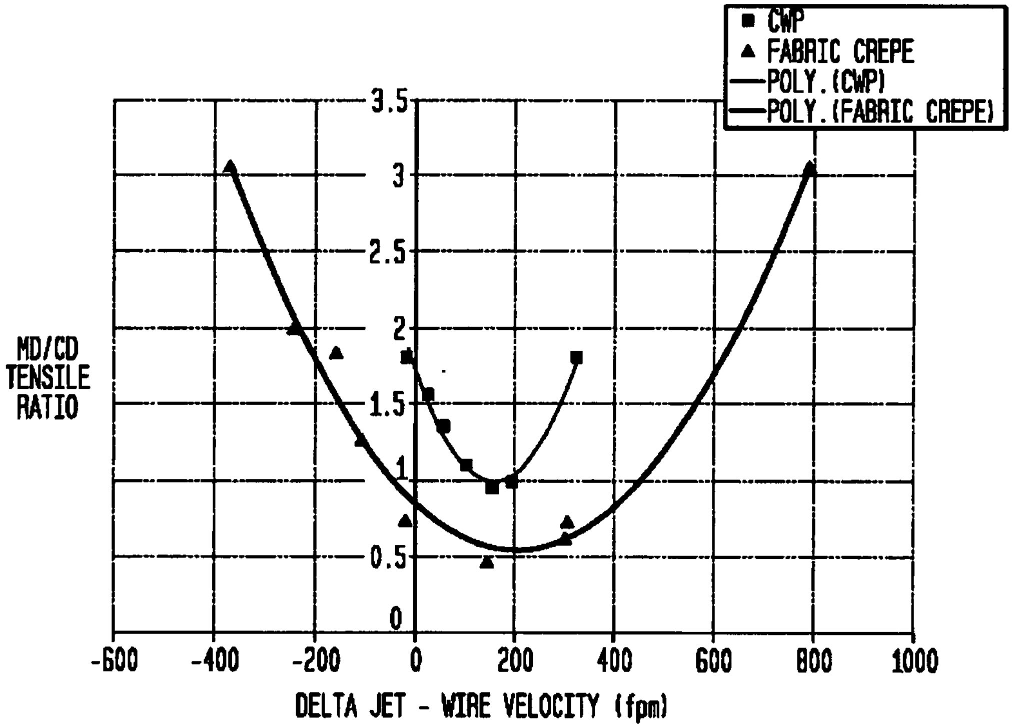
FIG. 42



Notwithstanding the fiber rearrangement ***after*** forming the web, forming parameters can still be used to control sheet properties; MD/CD tensile ratio, for example. *See* paragraph 28 of the *Declaration*:

> 28. With the '862 invention we are able to achieve an improved absorbent sheet by re-distribution and/or re-orienting fiber on a creping fabric or belt to attain the desired properties. One of skill in the art, I for one, would think this would eliminate or at least greatly reduce the influence the web forming conditions such as jet/wire ratio and so forth. It is seen in **Figure 39** of United States Patent Application Serial No. 11/108,375 filed April 18, 2005 (Attorney Docket No. 12389P1, continuation in part to this '862 application) that jet/wire ratios can be used to control tensile ratios, notwithstanding re-distribution of the fiber after formation. **Figure 39** is a plot of MD/CD tensile ratio (strength at break) versus the difference between headbox jet velocity and forming wire speed (fpm). The upper U-shaped curve is typical of conventional wet-press absorbent sheet. The lower, broader, curve is typical of fabric-creped product of the invention. It is readily appreciated from **Figure 39** that MD/CD tensile ratios of below 1.5 or so are achieved in accordance with the invention over a wide range of jet to wire velocity deltas, a range which is more than twice that of the CWP curve shown. Thus control of the headbox jet/ forming wire velocity delta may be used to achieve desired sheet properties.

FIG. 39



It is also seen from **Figure 39** that MD/CD ratios below square (i.e. below 1) are difficult; if not impossible to obtain with conventional wet-press processing.

In many products, the cross machine properties are more important than the MD properties, particularly in commercial toweling where CD wet strength is critical. A major source of product failure is "tabbing" or tearing off only a piece of towel rather than the entirety of the intended sheet. In accordance with the invention, CD tensiles may be selectively elevated by control of the headbox to forming wire velocity delta and fabric creping. I find this especially surprising in view of the fact that the fiber in the web has been re-distributed after formation.

Given the compelling evidence of non-obviousness in this case, patentability is clear. *In re Soni* is *apropos.* It was noted in *In re Soni,* 34 USPQ2d 1684, 1687 and following (CAFC 1995), that evidence of unexpected results or suprising results ordinarily suffices for purposes of nonobviousness:

> Mere improvement in properties does not always suffice to show unexpected results. In our view, however, when an applicant demonstrates substantially

> improved results, as Soni did here, and states that the results were unexpected, this should suffice to establish unexpected results in the absence of evidence to the contrary. Soni, who owed the PTO a duty of candor, made such a showing here. The PTO has not provided any persuasive basis to question Soni's comparative data and assertion that the demonstrated results were unexpected. Thus, we are persuaded that the Board's finding that Soni did not establish unexpected results is clearly erroneous.
>
> The cases cited by the dissent are not to the contrary. Neither De Blauwe, nor Wood, nor Lindner requires a showing of unexpectedness separate from a showing of significant differences in result. Nor does Merck, which involved compositions understood to differ only in "a matter of degree." Those are not the facts here, where substantially improved properties were shown. Given a presumption of similar properties for similar compositions, substantially improved properties are ipso facto unexpected. The difficulty postulated by the dissent in distinguishing substantial from insubstantial improvement is no greater than the PTO and the courts have encountered, successfully, for many years in making judgments on the question of obviousness. It is not unworkable; it is simply the stuff of adjudication. Nor does it change established burdens of proof. The PTO here established a prima facie case, the applicant responded to it with a showing of data, and the PTO made an inadequate challenge to the adequacy of that showing.

In view of the foregoing amendments, the substitute drawings previously filed, and the enclosed *Declaration of Steven L. Edwards*, this application is believed in condition for allowance. Such action is earnestly solicited.

This response is believed timely in view of extensions of time previously filed; however, if additional extensions of time are required, please consider this paper a *Petition* therefor and charge our deposit account No. 50-0935.

In response to the last *Official Action*, new Claims 151-165 have been added. In view of the numerous withdrawn claims, no additional fees are believed due; however, if additional fees are deemed due, please charge fees for additional claims to our Deposit Account No. 50-0935.

Respectfully submitted,

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